

ABSTRACT OF THE DISCLOSURE

A method of removing salt from seawater to produce potable freshwater. Apparatus that may be used with the method includes a large metal cylinder, with open top and bottom ends, anchored to the sea floor offshore. Several pressure hulls may be attached to the side of the cylinder. Within each pressure hull there are several reverse osmosis devices ("RODs"), each containing a membrane that will allow water molecules, but not sodium and chlorine ions, to pass through. Due to the pressure differential, freshwater passes through the membranes by reverse osmosis, and is pumped out of the pressure hulls to a storage facility onshore. After equilibrium is reached, the pumps for the brine can be turned off, as gravity will cause brine to flow down from the pressure hulls through an opening in the bottom of the cylinder. Alternatively, a reverse osmosis system may be supported on an elevated undersea platform.